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10/565,031	01/17/2006	Gerald Josef Reinhard	16795-16	5378
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EXAMINER MORRISON, THOMAS A				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,031

Applicant(s)

REINHARD ET AL.

Examiner

THOMAS A. MORRISON

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The preliminary amendment of 1/17/2006 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1 and its dependent claims 2-39, it is unclear which modules are included in the recited sheet-processing machine. For example, claim 1 recites "the sheet-processing modules optionally comprise one or more of the following modules: ..." This recitation does not specify which of the listed modules are included or not included. Rather, all of the listed modules are optional and none of the modules are required in claim 1. It is unclear which modules are included or not included in the sheet-processing machine. Likewise, the dependent claims are unclear, because it is unclear which modules other than those claimed in the dependent claims are included from the list of modules set forth in independent claim 1. Further clarification is requested.

Regarding claim 1 and its dependent claims 2-39, it is unclear which machine assemblies are claimed. For example, claim 1 recites "the modules are provided in such a way that the following machine assemblies can optionally be formed: ..." This recitation does not specify which of the listed machine assemblies are included or not

included. Rather, all of the listed machine assemblies are optional and none of the machine assemblies are required in claim 1. It is unclear which machine assemblies are included or not included. Likewise, the dependent claims are unclear, because it is unclear which machine assemblies are included in the dependent claims from the list of machine assemblies set forth in independent claim 1. Further clarification is requested.

Claim 6 recites the limitation "the transport cylinders" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the direction" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claims 1-39 include numerous lack of antecedent basis issues. Also, these claims include several recitations that make them unclear. For example, it is unclear throughout claims 1-39 as to which modules are claimed and which modules are not claimed. This makes the rest of the limitations based on these recited modules indefinite. The above-noted indefiniteness problems are merely examples. Applicant should review all of the claims and correct all of the indefiniteness problems.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-32, 35 and 37-39, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Canadian Publication No. 2407810.

Regarding claim 1, Figs. 1-3 show sheet-processing machine, wherein the sheets comprise respectively a plurality of copies, comprising a plurality of modules (including 1-21) which are passed through one after the other by the sheets to be processed, having a sheet feeder module (1) for feeding the sheets to a downstream sheet-processing module (including 18), wherein the sheet input interface and the sheet output interface of at least one of the sheet-processing modules (including 11) can optionally be coupled to sheet output interfaces and sheet input interfaces, respectively, of at least two other modules (including 10 and 15), and wherein the sheet-processing modules **optionally** comprise one or more of the following modules:

an inspection module (including 7) for monitoring the print quality of the sheets;

a marking module (Page 9, lines 16-32) for marking a sheet as usable or unusable depending on a monitoring result of the inspection module; and

a numbering module (including 12, 13 and 14) for applying serial numbering to the sheets, and wherein the modules are provided in such a way that the following machine assemblies can **optionally** be formed:

a first assembly comprising a sheet feeder module (18) and a numbering module (including 12, 13 and 14) directly connected in succession.

Regarding the recited "a second assembly" and the recited "a third assembly", these assemblies are all claimed as "optional". Since these recited second and third assemblies are claimed as being "optional", these second and third assemblies do **not** distinguish claim 1 from the prior art apparatus of Canadian Publication No. 2407810. The second and third assemblies need not exist at all, since they are optional.

Likewise, all of the recited sheet-processing modules are claimed as "optional". Thus, the recited "inspection module", the recited "marking module" and the recited "numbering module" do not distinguish claim 1 from the prior art apparatus of Canadian Publication No. 2407810, since these recited modules are claimed as being "optional". In other words, the recited "inspection module", "marking module" and "numbering module" need not exist at all, since they are optional.

Regarding claim 2, Figs. 1-3 show that each of the interfaces have respective transport cylinders (e.g., 3, 11, 12, 13, etc.) for receiving a sheet from an output transport cylinder of an upstream module or for passing a sheet to an input transport cylinder of a downstream module.

Regarding claim 3, Figs. 1-3 show that a sheet transport path within a module (including 4 and 10), which has a sheet input interface that can be connected to a number of sheet output interfaces, is formed by an even number of transport cylinders (4 and 10).

Regarding claim 4, Figs. 1-3 show that the output transport cylinder of an upstream module (including 3) and the input transport cylinder (4) of a downstream module have opposite directions of rotation.

Regarding claim 5, Figs. 1-3 show that the modules have their own respective side frame panels.

Regarding claim 6, Figs. 1-3 show that the modules have their own respective side frame panels and wherein the transport cylinders are fixed to the side frame panels. See also Page 13, lines 20-24.

Regarding claim 7, as best understood, Figs. 1-3 show that the side frame panels of the individual modules are fixed to one another.

Regarding claim 8, as best understood, Fig. 3 shows that the modules have a cut-out in which the side frame panels of the modules can engage and be supported.

Regarding claim 9, Fig. 1 shows that columns (unnumbered foot portions) can be provided for supporting the modules.

Regarding claim 10, Figs. 1-3 show that the numbering module (including 12, 13 and 14) is arranged behind the inspection module (including 7) in the conveying

direction of the sheets, so as to apply the numbering only to those sheets which have passed the quality check carried out by the inspection module (including 7).

Regarding claim 11, Figs. 1-3 show that a marking device (including 12) is arranged in the numbering module (including 12, 13 and 14).

Regarding claim 12, Figs. 1-3 show that a marking device (15) is arranged upstream of a numbering unit (including 12, 13 and 14).

Regarding claim 13, Figs. 1-3 show that a marking device (12) is arranged on a counter-pressure cylinder of a numbering unit (including 12, 13 and 14).

Regarding claim 14, page 9, lines 16-26 disclose that a marking device marks an edge region of a column and/or row in which the fault is located.

Regarding claim 15, as best understood, page 9, lines 16-26 disclose that a marking device marks a column and outputs the row number in which the faulty printing is located.

Regarding claim 16, page 9, lines 16-26 disclose that the marking module comprises a marking device for applying a marking to sheets.

Regarding claim 17, as best understood, page 9, lines 16-26 disclose that the marking device is arranged to apply the marking as unusable selectively to individual copies or in relation to individual copies on a sheet.

Regarding claim 18, as best understood, Figs. 1-3 show that the marking device (including 12) comprises a plurality of print heads (13 and 14) which are distributed uniformly in the direction transverse to the transport direction of the sheets.

Regarding claim 19, page 9, lines 4-8 disclose that the marking device (including 12) is an inkjet printing unit.

Regarding claim 20, Figs. 1-3 show that a transport module (11 or 18) is provided.

Regarding claim 21, Figs. 1-3 show that an expansion module (22) is provided.

Regarding claim 22, Figs. 1-3 show that an inking unit module (including 12) is provided which, in conjunction with another module (including 15), forms a printing module.

Regarding claim 23, Figs. 1-3 show that inking unit rollers (13 and 14) of the inking unit module (including 12) are mounted in side frame panels which can be connected to the side frame panels of the other modules.

Regarding claim 24, Figs. 1-3 show that the inking unit module (including 12) can be arranged on other modules.

Regarding claim 25, Figs. 1-3 show that the inking unit module (including 12 or including 15) uses a cylinder of the other module as form cylinder and forms a printing unit with the latter.

Regarding claim 26, Figs. 1-3 show that the printing module (including 12) uses a transport cylinder (11) of a module adjacent to the printing module (including 12) as counter-pressure cylinder.

Regarding claim 27, Figs. 1-3 show that the inking unit (including 12) is removably installed on the other module.

Regarding claim 28, Figs. 1-3 show that the circumference of the transport cylinders (11) are of the same size.

Regarding claim 29, Figs. 1-3 show that an inking unit module (including 12) is provided which, in conjunction with another module (including 15), forms a printing module, wherein the inking unit module (including 12) uses a cylinder of the other module (13 and/or 14) as form cylinder and forms a printing unit with the latter, and wherein the form cylinder and the transport cylinders (11) are of the same size.

Regarding claim 30, Figs. 1-3 show that the transport cylinders (13 and 14) of the sheet output interface and the transport cylinders of the sheet input interface (11 and unnumbered roller on element 15) are arranged at the same height.

Regarding claim 31, Figs. 1-3 show that the inspection module (including 7) comprises two transport cylinders (4 and 10) which transport the sheets with respective different sides facing outwards, and comprises inspection devices (7, 8, 7' and 8') arranged with the two transport cylinders (4 and 10) for inspecting the front and rear sides of the sheets, respectively.

Regarding claim 32, Figs. 1-3 show that each of the inspection devices comprise a respective image sensor (7 and 7') and a respective light source (8 and 8') for inspection by reflection.

Regarding claim 35, Figs. 1-3 show that a further transport cylinder (12) is provided with a further inspection device (17) for inspecting the light-transmitting capacity of the sheets. Regarding the recitation "for inspecting the light-transmitting capacity of the sheets", this is a statement of intended use that does not distinguish claim 35 from the prior art apparatus of Canadian Publication No. 2407810.

Regarding claim 37, Figs. 1-3 show that the numbering module (including 12, 13 and 14) comprises at least one numbering unit (12) for printing a serial number on the sheets to be processed.

Regarding claim 38, Figs. 1-3 show that the numbering module (including 12, 13 and 14) comprises two numbering units (13 and 14) which are arranged on a counter-pressure cylinder (12) with two printing segments.

Regarding claim 39, as best understood, Fig. 3 shows that the modules have a cut-out in which the side frame panels of the modules can engage and be supported.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Canadian Publication No. 2407810 as applied to claim 31 above, and further in view of U.S. Patent No. 6,166,366 (Lewis et al.). Canadian Publication No. 2407810 discloses inspection devices (including 7, 8, 7' and 8') in transport cylinders (4 and 10) that include light sources and light sensors, but Canadian Publication No. 2407810 does not explicitly disclose that such light sources and light sensors include a UV light source and a light sensor, as claimed

Lewis et al. discloses that it is well known to provide a printing apparatus with a UV light source and light sensor that detects such light source, for the purpose of detecting defects in printed materials conveyed in the printer apparatus. See, e.g., col. 14, line 55 - col. 15, line 10, abstract, and Figs. 1-18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the transport cylinders of the apparatus of Canadian Publication No. 2407810 with UV light sources and a UV light sensors for the purpose of detecting defects in materials conveyed on the printing apparatus of Canadian Publication No. 2407810, as taught by

Lewis et al. Thus, all of the limitations of claim 33 are met by this combination of references.

5. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Canadian Publication No. 2407810 as applied to claim 31 above, and further in view of U.S. Patent No. 4,299,325 (Quinton et al.). Canadian Publication No. 2407810 discloses that it is well known to use inspection devices (including 7 and 8) for detecting defects in printed materials, but Canadian Publication No. 2407810 does not explicitly disclose that such inspection devices include a magnetic field sensor, as claimed

Quinton et al. discloses that it is well known to provide a sheet handling apparatus with a magnetic field sensor for the purpose of detecting defects in printed materials. See, e.g., Fig. 1 and col. 2, lines 31-36 of Quinton et al. Because Canadian Publication No. 2407810 and Quinton et al. both teach sensors for detecting defects in printed materials, it would have been obvious to one skilled in the art to substitute the detecting device (2) of Quinton et al. for the detecting devices (including 7 and 8) of Canadian Publication No. 2407810 to achieve the predictable result of detecting defects in printed materials. Thus, all of the limitations of claim 34 are met.

Allowable Subject Matter

6. Claim 36 appears to include allowable subject matter, but it is not known how applicant will address the rejections under 35 U.S.C. 112, second paragraph, outlined above.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS A. MORRISON whose telephone number is (571)272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick H. Mackey/
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8/15/2008